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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,575	11/09/2001	Lawrence Shore	4832	4539

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EXAMINER

NGUYEN, CAM N

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,575

Applicant(s)

SHORE ET AL.

Examiner

Cam N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/09/01 (a CIP of 09/771,812).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-12 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 1-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>08/06/03, 06/20/03, & 3/12/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-20 are objected to because of the following informalities:
 - A. In claims 1-20, the word "preferential" should be deleted.
 - B. In claim 7, line 1, "wherein there is:" should be deleted and replaced thereof with --comprises--.
 - C. In claim 7, line 4, "in" should be changed to --dispersed on--.
 - D. In claim 12, line 1, "wherein there is:" should be deleted and replaced thereof with --comprises--.

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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3. Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 & 5-22 of copending Application No. 10/035,525 (hereinafter copending '525).

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

It would appear that there is no distinction between the claimed oxidation catalyst and that recited in the body of the claims of the copending '525. Even though the copending '525 claims a process of use, the same catalyst is disclosed in both applications.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102(e)

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Kittrell et al., "hereinafter Kittrell", (US Pat. 6,596,664 B2).

Kittrell discloses a catalyst comprising at least one metal selected from the

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group consisting of copper, zinc, iron, tungsten, molybdenum, chromium, and mixtures thereof distributed on a catalyst support wherein said catalyst support comprises a photocatalytically active support comprised of silicon in an amount from about 0.01 wt.% to about 70 wt.% titanium dioxide in an amount from about 30 wt.% to about 90 wt.%, tungsten in an amount from 0.1 wt.% to about 50 wt.% and at least one member selected from the group consisting of platinum and palladium (see col. 11- col. 12, claim 1). The catalyst comprises at least two of said metals being distributed over said catalyst support with the total of said metals not exceeding 20 wt.% (see col. 12, claim 3). Copper and molybdenum are distributed on the catalyst support (see col. 12, claim 5). The at least one member selected from the group consisting of platinum and palladium is present in the amount of less than or equal to about 10 wt.% (see col. 12, claim 6).

The claimed oxide support, copper, platinum group metal, and reducible metal oxide concentrations are met by the teaching of the reference since they fall within the disclosed ranges (see above).

Kittrell discloses the claimed oxidation catalyst, thus anticipates the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanchard et al., "hereinafter Blanchard", (US Pat. 4,492,770) in view of Bruderm uller et al., "hereinafter Bruderm uller", (US Pat. 6,201,160 B1).

Blanchard discloses a catalyst comprising a support and an active phase deposited thereon, which activate phase comprises copper, either cerium or iron, at least one metal selected from a group consisting of platinum and palladium, and at least one metal selected from the group consisting of iridium and rhodium (see col. 11, claim 1). The amount of platinum and palladium present ranges from about 0.04 to about 0.5 weight percent of the support, the amount of iridium and rhodium present ranges from about 0.002 to about 0.1 weight percent of the support, the amount of cerium or iron present ranges from about 0.1 to about 10 weight percent of the support, and the amount of copper present ranges from about 0.1 to about 4 weight percent of the support (see col. 11, claim 2). The support is comprised of silica, alumina, alumino-silicates or a mixture of oxides (see col. 12, claim 7). See also col. 12, claim 8. The support comprises a metal or ceramic substrate coated with a refractory oxide (see col. 12, claim 9). The support comprises alumina particles having a specific surface area of between 25 and 250 m²/g ... and a macroporosity such that the pore volume of pores having a diameter greater than 1000 Å is between about 0.05 and 0.6 cm³/g (see col. 12, claim 11). See also col. 12, claim 14.

Blanchard discloses the claimed oxidation catalyst, except for "copper being 5 wt.% or more" and "an oxide support being at least 50 wt.%".

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It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have optimized the copper and the support concentrations in order to achieve an effective catalyst because of *In re Boesch*. There is a motivation for optimizing the concentrations of copper and the support because a catalyst contains from 5 to 75% by weight of copper and from 95 to 25% by weight of Si support is known and taught by Bruderm ull (see Bruderm ull at col. 18, claims 1 & 5). Note that the claimed copper and support concentrations are met because they fall within the disclosed ranges.

The claimed platinum & cerium concentrations are met by the teaching of the reference (see above).

Regarding claims 15-20, while Blanchard does not disclose an apparatus or an article containing the disclosed catalyst, it would have been *prima facie obvious* to one having the ordinary skill in the art at the time the invention was made to have employed the disclosed catalyst in the apparatus and article as claimed since the same catalyst would be expected to have the same capability.

Citations

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form prepared attached. All references are cited for related art.

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Conclusion

9. Claims 1-20 are originally pending in the application. Claims 1-20 are rejected. Claims 1-20 are objected. No claims are allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cam Nguyen, whose telephone number is (571) 272-1357. The examiner can normally be reached on Mon, Wed, Thurs, & Fri from 8:45 am. to 5:15 pm.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to telephone number (571) 272-1700.

Nguyen/cnn *cnn*

January 08, 2005

~~XXXXXXXXXXXX~~
~~XXXXXXXXXXXX~~

Cam Nguyen
CAM N. NGUYEN
PRIMARY EXAMINER

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